

ILIOPSOAS TENDINITIS ACCOMPANIED WITH WORSENING OF RHEUMATOID ARTHRITIS**Dr. Takatomo Mine, Ryutaro Kozuma, Koichiro Ihara, Hiroyuki Kawamura, Ryutaro Kuriyama, Ryo Date**

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ABSTRACT

There have been several reports concerning hip conditions in RA patients accompanied by iliopsoas bursitis. However, there have yet to be any reports of iliopsoas tendinitis without bursitis in RA patients. In RA patients, the inflammation occurs not only in joint synovium, but also in tenosynovium and bursae. We report a case of iliopsoas tendinitis accompanied by worsening of rheumatoid arthritis.

KEYWORDS: iliopsoas, tenosynovium and bursae.**INTRODUCTION**

Rheumatoid arthritis (RA) is usually treated with DMARDs, corticosteroids, and biological DMARDs. We have encountered some patients that had sudden severe pain in major joints that causes ADL disturbance, in spite of their controlled RA condition. It is necessary to consider whether this condition is caused by infection, crystal-induced inflammation, or worsening of RA. If bacterial cultures and crystals are negative, and the X-ray images show no joint destruction, acute worsening of rheumatoid arthritis should be considered. Early diagnosis of this condition is very important. We report a case of iliopsoas tendinitis accompanied by worsening of rheumatoid arthritis.

CASE

A 62-year-old female patient was diagnosed with rheumatoid arthritis 5 years ago and controlled with methotrexate (MTX) 8 mg and PSL 3 mg in an other hospital. DAS 28-CRP was found to be 1.12. She complained of severe pain in her left buttock to femur and a painful limited range of motion of the left hip joint beginning 2 months ago. MRI revealed iliopsoas tendinitis and slight effusion of the hip joint (Figure 1), and conservative therapy was recommended because of the negative inflammatory response. However, her symptoms did not improve and she went to see another doctor 2 weeks later. CT scan did not show clear swelling and tendinitis of the iliopsoas muscle. She was suspected of an infection in the iliopsoas muscle, and thus was administered antibiotics. Her symptoms slightly improved after treatment, but she was referred to us for the purpose of examination.

At the physical examination, a painful limited range of motion of the left hip joint was noted (Figure 2), but the pain was decreased compared with 2 weeks previous. There was no redness or localized heat. There was no swelling in other joints.

Laboratory tests revealed that her Hb was 11.9 g/dl, WBC was 8700, and CRP was 0.08 mg/dl. TSPOT and 1, 3- β D-Glucan (BG) assay were negative.

An X-ray film showed slightly narrowing of the joint space in the left hip. MRI revealed iliopsoas tendinitis had mostly disappeared, but that joint effusion of the hip had increased (Figure 3). After the administration, bilateral hand pain and morning stiffness appeared, but there was no other joint swelling. After increasing MTX to 10mg/day, symptoms slightly improved. However, another joint pain appeared 2 weeks later. DAS 28 - CRP also worsened to 3.36. Golimumab was initiated and her symptoms subsided immediately.

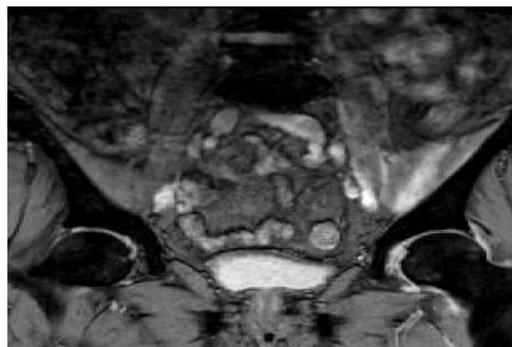
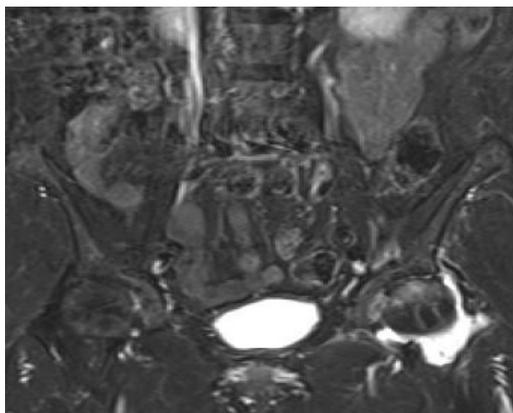


Figure 1: MRI.
Coronal T2-weighted STIR Image.
Iliopsoas tendinitis and slight effusion of the hip joint.



**Figure 2: MRI two weeks later.
Coronal T2-weighted STIR Image.**

Iliopsoas tendinitis had mostly disappeared and joint effusion of the hip had increased.

DISCUSSION

The psoas and iliacus muscles originate from the lumbar spine and pelvis, converge to become the iliopsoas muscle and insert anteromedially onto the lesser trochanter of the femur as the iliopsoas tendon. The iliopsoas muscle passes anterior to the pelvic brim and hip capsule.^[1] To our knowledge, there seems to be no reports of iliopsoas tendinitis without bursitis in RA patients that caused a painful limited range of motion of the left hip joint, as in this case. On the other hand, there are several reports concerning hip conditions in RA patients accompanied by iliopsoas bursitis.^[2-4] The iliopsoas bursa lies between the musculotendinous unit and the pelvic brim, and is present in both hips in 98% of adults.^[5] In RA patients, inflammation occurs not only in joint synovium, but also in tenosynovium and bursae. Chandler reported that communication between the iliopsoas bursa and the hip joint was observed in 14% of 400 cadaveric bursae and ranged in size from 1 to 3 mm.^[1] Gatch reported that a connection between the bursa and the joint space was observed in 30% patient with underlying hip disease.^[6]

It is known that in the knee and shoulder joints during rheumatoid arthritis there is a pathology in which a burst of bursitis causes acute inflammation of the surrounding soft tissues.^[7-9] In the knee joints, rapid pain and swelling of the lower leg was observed due to rupture of the popliteal cyst, and there were some cases that need to be distinguished from infection and deep venous thrombosis. Matsumoto reported that an enlarged psoas muscle and iliopsoas bursitis is associated with a rapidly destructive hip in RA patients, and proposed two theories on the enlargement: communication between the iliopsoas muscle and the iliopsoas bursitis, and extension of the synovitis into the muscle.^[10] In this case, we could not find any iliopsoas bursitis.

However, it is considered that increased hip arthritis in rheumatoid arthritis is involved the connected iliopsoas bursitis, and that bursitis increased and was more

inflamed in iliopsoas tendinitis due to rupture of iliopsoas bursitis. This results in a painful limited range of motion of the left hip joint, as in this case. The iliopsoas tendinitis recovered immediately. Thus, CT scan did not show clear swelling and tendinitis of the iliopsoas muscle 2 weeks later. Subsequently, worsening of RA continued, and MRI revealed that joint effusion of the hip increased.

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